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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/627,236 07/27/00 GROSS

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EXAMINER

ZEMAN, R

ART UNIT

PAPER NUMBER

1645

DATE MAILED:

09/07/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

# Office Action Summary

Application No.  
09/627,206

Applicant(s)

Gross et al.

Examiner  
Robert A. Zeman

Art Unit  
1645



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jul 27, 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-88 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claims 1-88 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20) ☐ Other:

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## **DETAILED ACTION**

### ***Election/Restriction***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

1. Claims 1, 2 and 9-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal a soluble ztnf4 receptor, classified in class 424, subclass 185.1.
2. Claims 1, 4 and 9-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal a polypeptide comprising the extracellular domain of BR43x2, classified in class 424, subclass 185.1.
3. Claims 1, 4 and 9-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal a polypeptide comprising the extracellular domain of TACI, classified in class 424, subclass 185.1.
4. Claims 1, 4 and 9-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal a polypeptide comprising the extracellular domain of BCMA, classified in class 424, subclass 185.1.
5. Claims 1 and 9-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal a polypeptide comprising the sequence of SEQ ID NO:10, classified in class 424, subclass 185.1.
6. Claims 1 and 7-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal an antibody or antibody fragment which

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specifically binds to a polypeptide of SEQ ID NO:2, classified in class 424, subclass 134.1.

7. Claims 1 and 7-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:4 , classified in class 424, subclass 134.1.
8. Claims 1 and 7-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:6, classified in class 424, subclass 134.1.
9. Claims 1 and 7-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:8, classified in class 424, subclass 134.1.
10. Claims 1 and 7-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:10, classified in class 424, subclass 134.1.

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11. Claims 1, 5 and 9-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal a polypeptide comprising the sequence of SEQ ID NO:4, classified class 424, subclass 185.1.
12. Claims 1-3, 5-6 and 9-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal a polypeptide comprising the sequence of SEQ ID NO:6 and portions thereof, classified in class 424, subclass 185.1.
13. Claims 1-3, 5-6 and 9-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal a polypeptide comprising the sequence of SEQ ID NO:8 and portions thereof, , classified in class 424, subclass 185.1.
14. Claims 2-3, 6 and 9-28, drawn to a method of inhibiting ztnf4 activity in a mammal comprising administering to said mammal a polypeptide comprising the sequence of SEQ ID NO:2 and portions thereof, classified in class 424, subclass 185.1.
15. Claims 29 and 37-55, drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering soluble ztnf4 receptor, classified in class 424, subclass 185.1.
16. Claims 29, 32 and 37-55, drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering a polypeptide comprising the extracellular domain of BR43x2, classified in class 424, subclass 185.1.

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17. Claims 29, 32 and 37-55, drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering a polypeptide comprising the extracellular domain of TACI, classified in class 424, subclass 185.1.
18. Claims 29, 32 and 37-55, drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering a polypeptide comprising the extracellular domain of BCMA, classified in class 424, subclass 185.1.
19. Claims 29 and 37-55, drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering polypeptide comprising the sequence of SEQ ID NO:10, classified in class 424, subclass 185.1.
20. Claims 29 and 35-56, drawn to drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:2, classified in class 424, subclass 134.1.
21. Claims 29 and 35-56, drawn to drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:4 , classified in class 424, subclass 134.1.
22. Claims 29 and 35-56, drawn to drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering an antibody or antibody fragment

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- which specifically binds to a polypeptide of SEQ ID NO:6, classified in class 424, subclass 134.1.
23. Claims 29 and 35-56, drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:8, classified in class 424, subclass 134.1.
24. Claims 29 and 35-56, drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:10, classified in class 424, subclass 134.1.
25. Claims 29, 33 and 37-56, drawn to a method of BR43x2 receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:4, classified class 424, subclass 185.1.
26. Claims 29-31, 33-34 and 37-56, drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:6 and portions thereof, classified in class 424, subclass 185.1.
27. Claims 29-31, 34 and 37-56, drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering a polypeptide comprising the

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sequence of SEQ ID NO:8 and portions thereof, , classified in class 424,  
subclass 185.1.

28. Claims 30-31, 34 and 37-56, drawn to a method of inhibiting BR43x2 receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:2 and portions thereof, classified in class 424, subclass 185.1.
29. Claims 29, 32 and 37-55, drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering a soluble ztnf4 receptor, classified in class 424, subclass 185.1.
30. Claims 29, 32 and 37-55, drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering a polypeptide comprising the extracellular domain of BR43x2, classified in class 424, subclass 185.1.
31. Claims 29, 32 and 37-55, drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering a polypeptide comprising the extracellular domain of TACI, classified in class 424, subclass 185.1.
32. Claims 29, 32 and 37-55, drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering a polypeptide comprising the extracellular domain of BCMA, classified in class 424, subclass 185.1.



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33. Claims 29 and 37-55, drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering polypeptide comprising the sequence of SEQ ID NO:10, classified in class 424, subclass 185.1.
34. Claims 29 and 35-56, drawn to drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:2, classified in class 424, subclass 134.1.
35. Claims 29 and 35-56, drawn to drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:4 , classified in class 424, subclass 134.1.
36. Claims 29 and 35-56, drawn to drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:6, classified in class 424, subclass 134.1.
37. Claims 29 and 35-56, drawn to drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:8, classified in class 424, subclass 134.1.

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38. Claims 29 and 35-56, drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:10, classified in class 424, subclass 134.1.
39. Claims 29, 33 and 37-56, drawn to a method of TACI receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:4, classified class 424, subclass 185.1.
40. Claims 29-31, 33-34 and 37-56, drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:6 and portions thereof, classified in class 424, subclass 185.1.
41. Claims 29-31, 34 and 37-56, drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:8 and portions thereof, , classified in class 424, subclass 185.1.
42. Claims 30-31, 33-34 and 37-56, drawn to a method of inhibiting TACI receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:2 and portions thereof, classified in class 424, subclass 185.1.

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43. Claims 29, 32 and 37-55, drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering a soluble ztnf4 receptor, classified in class 424, subclass 185.1.
44. Claims 29, 32 and 37-55, drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering a polypeptide comprising the extracellular domain of BR43x2, classified in class 424, subclass 185.1.
45. Claims 29, 32 and 37-55, drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering a polypeptide comprising the extracellular domain of TACI, classified in class 424, subclass 185.1.
46. Claims 29, 32 and 37-55, drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering a polypeptide comprising the extracellular domain of BCMA, classified in class 424, subclass 185.1.
47. Claims 29 and 37-55, drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering polypeptide comprising the sequence of SEQ ID NO:10, classified in class 424, subclass 185.1.
48. Claims 29 and 35-56, drawn to drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:2, classified in class 424, subclass 134.1.

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49. Claims 29 and 35-56, drawn to drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:4 , classified in class 424, subclass 134.1.
50. Claims 29 and 35-56, drawn to drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:6, classified in class 424, subclass 134.1.
51. Claims 29 and 35-56, drawn to drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:8, classified in class 424, subclass 134.1.
52. Claims 29 and 35-56, drawn to drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering an antibody or antibody fragment which specifically binds to a polypeptide of SEQ ID NO:10, classified in class 424, subclass 134.1.
53. Claims 29, 33 and 37-56, drawn to a method of BCMA receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:4, classified class 424, subclass 185.1.

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54. Claims 29-31, 33-34 and 37-56, drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:6 and portions thereof, classified in class 424, subclass 185.1.
55. Claims 29-31, 34 and 37-56, drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:8 and portions thereof, , classified in class 424, subclass 185.1.
56. Claims 30-31, 33-34 and 37-56, drawn to a method of inhibiting BCMA receptor-ligand engagement comprising administering a polypeptide comprising the sequence of SEQ ID NO:2 and portions thereof, classified in class 424, subclass 185.1.
57. Claims 56 and 58-60, drawn to a polynucleotide encoding a polypeptide with sequence of SEQ ID NO:2, vectors comprising said polynucleotide, cells comprising said vector and a method of using said cells and vectors to produce a polypeptide, classified in class 435, subclass 320.1 and class 435, subclass 69.1.
58. Claim 57, drawn to an isolated polynucleotide of SEQ ID NO:1, classified in class 536, subclass 23.1.
59. Claims 61-62, drawn to a polynucleotide with the SEQ ID NO:2, classified in class 530, subclass 350.

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60. Claims 63-64 and 67-81, drawn to methods of inhibiting B lymphocyte proliferation, classified in class 424, subclass 185.1.
61. Claims 63-64 and 67-81, drawn to methods of inhibiting B lymphocyte activation, classified in class 424, subclass 185.1.
62. Claims 63-64 and 67-81, drawn to methods of inhibiting B lymphocyte homeostasis, classified in class 424, subclass 185.1.
63. Claims 63-64 and 67-81, drawn to methods of inhibiting B lymphocyte effector function, classified in class 424, subclass 185.1.
64. Claims 63, 65 and 67-81, drawn to methods of modulating antibody production, classified in class 424, subclass 185.1.
65. Claims 63, 66 and 67-81, drawn to methods of reducing B lymphocytes in the periphery, classified in class 424, subclass 185.1.
66. Claims 82-88, drawn to methods of reducing proteinuria, classified in class 424, subclass 185.1.

The inventions are distinct, each from the other because of the following reasons:

Inventions 1-56 and 60-66 are separate and distinct from each other as they are drawn to differing methods having different steps and leading to differing results.

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Inventions 57-59 each are separate and distinct from Inventions 1-56 and Inventions 60-66 as the compounds of Inventions 57-59 cannot be used in the methods of Inventions 1-56 or Inventions 60-66.

Inventions 57-59 are separate and distinct from each other as they comprise completely differing biochemical and immunological entities having differing properties and uses.

Invention 57 and 58 are drawn to different nucleic acids, whereas Invention 59 is drawn to a polynucleotide.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.


Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

to request an oral election to the above restriction requirement, but did not result in an election being made.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Zeman whose telephone number is (703) 308-7991. The examiner can be reached between the hours of 7:30 am and 4:00 pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, Donna Wortman, Primary Examiner can be reached at (703) 308-1032 or the examiner's supervisor, Lynette Smith, can be reached at (703)308-3909.

  
LYNETTE R. F. SMITH  
SUPERVISORY PATENT EXAMINER  
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Robert A. Zeman

September 6, 2001